

Meeting Description: Michigan Geographic Framework Users Meeting

Date: November 2, 2000

Time: 10:00 a.m.

Location: Romney Building, 10th Floor, Michigan Information Center Conference Room

I. Approval of October Meeting Minutes

II. Geographic Framework Program

A. Phase 2 Status

Rob Surber, MIC, distributed a current status map. MIC continues to work on Wayne and Oakland counties. Staff is working 104 hours per week on Wayne County and 55 hours per week on Oakland County. MIC has a staff person that is very good at collecting source information and has collected stacks of condominium and apartment complex maps and descriptions from private companies that own these. This data will be incorporated Wayne County particularly. MIC is still planning to complete these counties by the end of the year and may add more staff if necessary.

B. Polygon Build / Act 51 / Seaming Update

Rob Surber, MIC, reported that MIC has about 5 more counties fully seamed since last meeting and work on several more counties has been started. MIC is working their way through Michigan from top left to right. Seaming work for Jackson, Ionia, Gratiot, Saginaw, and Genesee counties may start by next meeting and many more counties will have been completed. MIC has finished Phase 3 work for Act 51 counties - everything except the counties that Michigan State Industries (MSI) is working on and by the end of the year all work should be complete.

C. Framework Rail Meeting

Rob Surber, MIC, reported that the meeting is set for next week with Michigan Department of Transportation (MDOT) rail experts. MIC will present current Michigan Geographic Framework (MFG) and MDOT will provide standard attributes they would like collected.

D. Repositioning Update

Everett Root, MIC, reported that Alden Leatherman, MIC, wrote tools that work well for repositioning and now need to train staff. MIC now has all the Upper Peninsula photography that is available. By next week, they hope to get staff working on it and will put together quality control standards tools and rules. The MIC will have 4 staff work on it at first and then they will be the leaders for other staff.

Rob Surber, MIC, added that the MDNR shared staff is making sure that the MDNR issues are being addressed. There are cases in Monroe County that will be sent to Michigan Department of Environmental Quality (MDEQ) for clarification. As rules are established, they will be consistent and will also share information with the rest of the group.

Eric Swanson, MIC, stated that staff showed Eric shared Corp of Engineers aerial photos along shoreline to determine where shoreline is.

Jeroen Wagendorp, Allegan County, asked if the shoreline delineation is a current Corps grant project.

Rob Surber, MIC, responded that it is his understanding that is why the photos were collected.

Jeroen Wagendorp, Allegan County, commented that Grand Valley State University, Western Michigan University, and Eastern Michigan University have all been working on the shoreline.

Rob Surber, MIC, stated that the Corps has been in discussions with the MIC, and they have indicated that they have already done it.

Jeroen Wagendorp, Allegan County, agreed that the Corps has done it, but progress is inconsistent. Allegan County is working backwards on southwest Michigan from 1999 to 1998 as best they can to determine recession of shoreline. There should be some good shoreline data, but not sure how this dovetails into what the MIC is doing.

Eric Swanson, MIC, responded that it dovetails right into what the MIC is doing.

Steve Miller, MDEQ, commented that the issue of where shoreline is put could vary depending on water levels. For legal purposes, they look for high water level.

Rob Surber, MIC, stated that he would contact Jeroen to get contact information.

Ann VanSlembrouck, SEMCOG, asked Everett Root, MIC, what the MIC is using for tools.

Everett Root, MIC, responded that they will start out with ArcEDIT and will research ArcMAP once they have computers that can handle ArcMAP and the photos. The images are TIFF.

E. Digital Ortho Order

Everett Root, MIC, reported that he placed an order for 350 quarter-quads. A previous order had a 6-week waiting period, but now the waiting period is down to 7-10 days. GRID is installed so MIC can now reproject the color infrared (IR) photos.

Bill Enslin, MSU Center for Remote Sensing and GIS, asked if MIC is doing the work quad based and if it is seamed into county coverages.

Eric Swanson, MIC, answered Bill Enslin's question with a 'yes'.

Everett Root, MIC, added the quad-based work is seamed from MrSID mosaic. MIC anticipates a quarter-quad MrSID, a quad version of MrSID, and a county version of MrSID. Has not tried it with the color photos yet. Will produce a set for Dave Gillis, who wants a set of Dickinson County in state plane, so will reproject a set and MrSID all in one image.

Gary Bilow, MDNR, stated that they have done this in part.

Bill Enslin, MSU, stated that they had a chance with MapObjects Light 2 to use MrSID images as a backdrop. It's sluggish getting it up, but it will be efficient and useful at full county scale.

Everett Root, MIC, commented that the MIC has done 15 other counties and offered them to Bill to look at. They are done in black and white in 20:1 compression and can vary it as well. This takes a 40 megabytes quarter-quad down to about 2 megabytes.

Bill Enslin, MSU, stated that theoretically color infrareds (CIRs) could be done at 50:1. It is most efficient at compressing colors.

Rob Surber, MIC, stated this has been useful when delineating hydro. It would be helpful to have a status map on the web.

Eric Swanson, MIC, commented that since we are on the subject and there is a lot of interest in creating imagery programs. Several members of the Michigan GIS Users' group attended a National Aeronautics and Space Administration (NASA) sponsored meeting and was encouraged to see that NASA is interested in working with state, local, regional, and tribal governments to provide services, application development and support. They are not against creating jobs for American businesses – i.e. even work with the private sector to get higher resolution data. It is an avenue for the state to pursue in working with NASA. Everyone is interested in remote sensing data (digital ortho's, LYDAR, high-resolution elevation data, and conventional photography) and everyone is stumbling over each other to build imagery database. Eric is proposing that interested parties start thinking of what an imagery program for the state would look like. This would include state, local, regional, and federal governments. Could we put together a well-funded program and meet diverse needs, whether satellite data or both, to get statewide coverages on a frequent basis and get updated information for high growth areas on an annual basis. It would be great to go to a place and query what is available or what is going to be available for a county or jurisdiction.

Jeroen Wagendorp, Allegan County, added if NASA was eluding to the half-meter data, which appears to be more of a political holdup rather than a technological holdup. The next step would probably be quarter-meter data. Jeroen thinks there will be increased interest in half-meter data. For those of us at the county level who can barely afford 1-foot pixel data, half meter is almost as close.

Eric Swanson, MIC, added that the air born data would still be valuable as well. Eric is interested in looking at what is available for a county in Corps data, United States Geological Survey (USGS) data, MSU historical data, and/or SEMCOG data.

Jeroen Wagendorp, Allegan County, commented that if nothing else, the space guys would add a level of competition to the plane guys and price-wise all will benefit from it.

Eric Swanson, MIC, stated that NASA is committed to doing this. NASA has \$3.5 million now that may increase to \$5-10 million for fiscal year 2001. NASA has 12 projects this year and Eric would like to see Michigan be one of them. NASA wants to fund over 3 years and then wean the states and locals off NASA funding and put it into an operational context. Eric believes it is very doable with the model that we have in Michigan and that funding can be secured to keep it going for the long-term. It provides not only data component, but also an educational component for trainers across the state. This could be a good opportunity for all.

Rob Surber, MIC, added that if anybody has thoughts or ideas, please contact the MIC.

Eric Swanson, MIC, commented that this is an open process to garner ideas. It will move fast. Hopefully people reading these minutes and possibly the IMAGIN newsletter will get the word out. Eric expects that within 3-6 months maximum he would like to see a proposal written and submitted to NASA.

Rob Surber, MIC, asked if NASA provided templates for proposals.

Eric Swanson, MIC, responded that there were no templates, but there is a draft solicitation that will be sent to the states. Eric expects that within a month and wants to begin writing upon receipt.

Jeroen Wagendorp, Allegan County, commented that NASA made an attempt to make the process simple- just submit ideas and NASA will help refine them if they feel that you are on target no matter how it is expressed.

Eric Swanson, MIC, stated that NASA is not asking for a proposal written to use only NASA data. NASA requested that people do not write anticipating what NASA can do for them, but write about what we need to do and NASA will plug into it.

Rob Surber, MIC, added that during the open period, it is important for us to be able to get ideas of what we need to do

Eric Swanson, MIC, requested that people send information to him at: Michigan Information Center, 111 S. Capitol, 10th Floor, Lansing, MI 48933

F. County Geographic Information System (GIS) Conference

Rob Surber, MIC, commented that he appreciated everybody who participated in the County GIS Conference.

Everett Root, MIC, reported that the booth got a lot of attention and good feedback. People who are not aware of what is going on in state GIS, have a chance to be informed.

Bill Enslin, MSU, announced the upcoming IMAGIN conference. There will be call for papers for the spring forum. There will be topical areas where the papers will be pigeon holed into. There is a push to get papers in hard copy so that attendees can take them with them. There has been discussion about publishing these papers or putting them on a website later.

Eric Swanson, MIC, commented that URISA did this, but sent out a CD with a donation invoice.

Bill Enslin, MSU, added there had been evaluations on the meetings and there were a number people interested in something to share with those that could not attend.

Steve Miller, MDEQ, asked if the IMAGIN conference would have more on remote sensing.

Bill Enslin, MSU, responded that they have addressed remote sensing in the past. They are approaching Microsoft for a representative this year. Bill will present Steve's suggestion to the committee. Bill thinks that IMAGIN is waiting for a information of the new imagery.

Steve Miller, MDEQ, commented that they are waiting until they are better prepared to disseminate it first.

G. Ottawa County Partnership

Rob Surber, MIC, reported that MIC met with Brian Bernadier, Ottawa County GIS Coordinator. MIC is hoping to establish a digital exchange program of centerline products between offices of the county level and the state. In the partnership, a select set of attributes and selected themes of information from framework will be shared in an update mechanism. There will be an addition of new features to the themes and the attributes associated with them and the repositioning of current information in the framework. If this goes well, the repositioning may be done in Ottawa County by Ottawa County. MIC met with the technical staff to discuss standards. MIC tried to encapsulate editing standards into an understandable document and are working to

modify in this process so that it may be offered to any county or city that would like to update framework at local level. There are core mandatory requirements to share information and also some gray areas. Ottawa County will come to the MIC for more training on procedures. Then MIC and Ottawa County will work on partnership document. There will be various partnerships established. Each county will come from different a level of participation. Some counties will already have product, but will like to work on a plan to integrate. Then MIC will have to talk to county about the reconciliation process and discuss which attributes to share. A county may have and may be the official holder of a good set of attributes or an agency may be responsible only for the drains and that may be all they can provide to a partnership. So the partnerships must be flexible to fit each situation. Counties can provide digital exchange for updating and would keep framework maintained.

Jeroen Wagendorp, Allegan County, commented that Ottawa County is at ground level and this is a good time to start a partnership with them.

Rob Surber, MIC, added that there are a lot of counties that are at ground zero like Ottawa County and this could be a model for many of them.

Eric Swanson, MIC, stated that some of the counties that have aggressive GIS programs, as Allegan County has, and as the state moves forward with repositioning and shoreline issues and gets closer to where the county work is, the reconciliation process gets closer to reality.

Jeroen Wagendorp, Allegan County, added that he thinks that Ottawa County may be the last large county at ground level.

Rob Surber, MIC, stated that he doesn't know what Ingham County is doing – they may be at ground level. For a major county, they are not on the map yet. The Ingham County Health Department is doing some work.

Bill Enslin, MSU, responded that MSU is having some discussions about doing parcel work for Ingham County.

Rob Surber, MIC, added that Tri-County might be working with Ingham County also. But there are not many that are starting at ground zero. Ottawa County has standards, but are open. Wayne County is also willing to work together and they are also open to meeting somewhere in the middle when setting standards (topology, hydrography, etc.) That is an ingredient for success, because technology issues can be resolved if both parties are open to working together on common standards. Ottawa County can be a useful model for other counties around the state and could be useful for NSDI discussions around the country. Before now MIC was determining standards themselves, but now are talking about maintenance. Ottawa County is working with road commission, 9-1-1, and drains and plans to coordinate addressing, drain work, hydrography, etc. with all agencies. NSDI language discusses 'area integrator' and that it works well if county is doing integration work and then works together with the state. MIC would like to automate as much as possible through transactional updates etc. and that will work well if Ottawa is able to coordinate. Wayne County has been able to do this and Ottawa County is attempting to do this. Ottawa County GIS is located in the County Executive's office and the IT department works with them – this is not a guarantee for success, but it is an important component.

Jeroen Wagendorp, Allegan County, stated that statewide at the county level there is a huge dichotomy between GIS people that started because of equalization program or drain officer or public works and where there is a mandate from the administrator that it will happen. It creates for interesting comparisons statewide.

Rob Surber, MIC, added that the survey is capturing some of that.

Eric Swanson, MIC, encouraged people to fill out the surveys. **IT IS IMPORTANT TO COMPLETE THE SURVEY.** He could have used an extract from it but so few people submitted information that it was not useful.

Rob Surber, MIC, stated that a lot of people have completed it, but when you start summarizing it at the different levels, the numbers go down.

Eric Swanson, MIC, stated that the federal Office of Management and Budget wanted to know investments being made by counties, state government, in staff in dollars, etc. and that information should be available through the survey responses. But if only 20 counties and 5 state agencies, it doesn't indicate good representative information. It is a benefit to everybody to have that information available.

Rob Surber, MIC, added that the survey now has reporting capabilities. Can summarize by level of government to different categories of different projects. It is useful, because you can see what is going on by what is entered.

Eric Swanson, MIC, stated that if all 83 counties would enter their annual dollar investment, it would probably be \$50 million.

Rob Surber, MIC, commented that MIC has a staff person calling the individuals who have started the survey to follow up. It takes everybody's participation. Spread the word. The feds are interested in what is going on in the state and we can all benefit if we can summarize in understandable form.

Jeroen Wagendorp, Allegan County, commented that he looks at this from a different angle. He had been looking for information because they are subject to a salary study. He was given a number of comparable counties that had GIS. Jeroen called the counties to see what they are doing and to what extent. If nothing else, this information would become available to the companies that are selling the comparison job information.

Eric Swanson, MIC, stated that the survey asks for number of full-time and number of part-time employees and what they earn. With that information it is possible to come up with income estimates, if the data is entered.

Jeroen Wagendorp, Allegan County, responded that if you look at the annual and monthly URISA job listings, it seems to be an IT related type employment categories. Jeroen would like to educate professional companies that the GIS people are good people and do a lot of good for the counties.

Rob Surber, MIC, commented that this all the more reason to fill out the survey and talk it up.

H. Council of State Governments

Eric Swanson, MIC, reported that the annual meeting would be in Dearborn, Michigan, December 7-9. Eric is scheduled to meet with the governor's staff on November 13 to coordinate a demo booth on state government GIS. Eric will recommend pulling together all state department partners and set up to display not only in map form but have live demo's. GIS has been chosen as 1 of 6 demonstrations to represent a cutting edge effort of the state. Brian DeBano and Kathy Wilson, Government Office Affairs, are coordinating efforts of state government. Eric will contact them to see if he can get guidance to know how to plan - needs to space requirements and how many computers will fit.

Rob Surber, MIC, added that this is national function and it brings in a lot of key players from states around the country.

Eric Swanson, MIC, commented that we not only get to display what the state is doing for GIS, but it creates a ripple effect.

III. Michigan Department of Natural Resources (MDNR) Projects and Activities

Gary Bilow, MDNR, reported that they are in the 2nd year of a process to redo their monitoring forest classification system. One of the tools will be LandSat TM Imagery. They have different images of LandSat for the Upper Peninsula and the northern Lower Peninsula, but don't have anything for the southern Lower Peninsula. As part of the Integrated Forest Monitoring Assessment Project (IFMAP), they will make a LandSat purchase this year. The training sites have all been done and classification will be done as part of the IFMAP. Will then have statewide LandSat coverage available by this time next year. The current data is several years old.

IV. Michigan Department of Transportation (MDOT) Projects and Activities

Joyce Newell, MDOT, reported that they are doing the final review of the northern regional counties and expect to have back to the MIC within 1-2 weeks.

V. Michigan Department of Environmental Quality (MDEQ) Projects and Activities

John Clark, MDEQ, distributed selected availability program information from SPOT Image Corporation. SPOT is willing to sell to the state and partners satellite imagery from 1998 to present. Can get statewide coverage for \$64,000 for SPOT panchromatic satellite imagery merged with LandSat 7 to colorize, edge

matched, georeferenced, NAD83 data, UTM, ortho-corrected using USGS, digital elevation modules (DEMs), ground control points selected from USGS 7.5' topos. SPOT is running a program to get a one-time shot leaf-off. If leaf-off not available, can go with leaf-on. John is curious if other people are looking at this? Can buy Landsat 7 seamed after the blend on top of SPOT or may be able to get all 7 multi-structural bands instead of the average 3 bands. SPOT is checking on and will advise John. SPOT also charges \$1.65 per square mile for land use classifications, for Michigan SPOT was estimating \$94,000.

Jeroen Wagendorp, Allegan County, asked Bill Enslin, MSU, what happens when take an image from SPOT at the 10-meter level and merge Landsat 7, does it render useful image at 1-meters.

Bill Enslin, MSU, responded that you would get high spatial resolution of urbanized areas and high contrast targets will improve Landsat process.

Eric Swanson, MIC, asked if people would use this if it were available.

Steve Miller, MDEQ, commented that this is not an end all application, but given price and availability statewide, it something that could be put to use.

Rob Surber, MIC, added that there is some buy in later.

Eric Swanson, MIC, commented that when he was at NSGIC, SPOT presented this. If you buy in now, in 2 years they intend to come out with 5-meter data. Can then re-buy the 5-meter for the same price and then in 4 years will come out with 2.5-meter data at double the price.

Jeroen Wagendorp, Allegan County, asked how easy would it be to conflate independent Landsat images with SPOT independently in your home shop. If you have time series of SPOT or Landsat TM and are trying to plug into the farmer market for the fertilizer business, and conflate with SPOT and then take home-grown parcel stuff over the top. Is that doable at the local level?

John Clark, MDEQ, commented that software would factor into it. The ERDAS IMAGIN product will blend the satellite seams together. Just to merge to color from the Landsat it is fine. It is all georeferenced so would just have to reproject the NAD83, UTM to what you are using as a base.

Jeroen Wagendorp, Allegan County, stated that it would be worth looking at the blending of regular Landsat TM data at regular intervals of a few months with the SPOT data of every 2-3 years. In this manner you would be able to maintain a thematically current georeferenced image. Jeroen suggested that it might be 2-3 years before this would be commonly done.

Bill Enslin, MSU, remarked that this is a good point. An alternative would be to buy the products separately and do custom merging yourself. As long as merged into the GeoTIFF product, they can be separated out and use for different purposes. Could be used for a multi-band analysis.

Eric Swanson, MIC, asked if a shop like MSU's could merge them.

Bill Enslin, MSU, responded that even a shop like MIC could merge them. For merging you would just need the software to do it. It is less involved than mosaicing.

John Clark, MDEQ, added that because buying Landsat to do merge to colorize under the package, SPOT would sell Landsat scenes at half price – would get Landsat and merge product. John asked SPOT “why not merge all color bands from Landsat right into SPOT first time around because that it what we would do if we wanted all the bands in there”. MDEQ's big interest is tied to land use and getting better numbers for wetlands, and more current information on wetlands. That's why MDEQ sees it as a potential.

Jeroen Wagendorp, Allegan County, added that Raytheon and Towson State University, Maryland, paid for by NASA have created the methodology to do just that. If you provide a receipt, they are obligated to hand you the methodology for the whole state paid for by NASA.

VI. Michigan State Police (MSP) Projects and Activities

Nobody in attendance.

VII. Michigan State Industries (MSI) Projects and Activities

Carol Woodman, MSI, reported that they are basically at the same point as last month. Livingston and Macomb Counties are going okay. MSI has a new contract with MDOT for 2 more years.

Rob Surber, MIC, commented that MIC will work on parceling up Wayne and Oakland Counties for MSI. Will probably have to figure out technical issues first.

VIII. MIC Projects and Activities

A. Federal Office of Management and Budget (OMB) Initiative

Rob Surber, MIC, reported that Wayne County has initiated some discussions with the federal OMB on National Spatial Data Infrastructure (NSDI) demonstration program for the State of Michigan. The Federal Geographic Data Committee (FGDC) roll with NSDI is changing and OMB is taking more of a leadership role in implementation of NSDI. Rob is flying to Washington to meet with the U.S. Bureau of the Census and Wayne County to work on the possible modernization of TIGER using the Michigan Geographic Framework (MGF) at the county level. The state would be a bridge between the county and the feds to get good county information to the Census Bureau. MIC is interested in more than census, but also Federal Highway Administration (FHWA) through MDOT, Environmental Protection Agency (EPA) through MDNR and MDEQ, and USGS. This meeting is based on talks with the Census Bureau. Bob Marx, Census Geography Director, and Census Bureau staff and Wayne County will look at ways that we can start moving our organizations together on sharing information. Will talk about the possibility of the Census Bureau coming to the table and developing tools that can be plugged into our editing process that will integrate into the Census Bureau products. The goal is to make the tools that are generic enough that other counties or other state can be involved in. There is real muscle behind OMB's desire to operationalize NSDI and Michigan is a good potential model because we already do a lot of work and are committed to updating statewide and integrating at the county level. Wayne County and the state are working together already.

Eric Swanson, MIC, added that MIC already has another model in the state. In 1997 MIC sent maps to every jurisdiction in the state because of the constraints of the Census Bureau in part. It was a nightmare and Eric is willing to make a huge investment to avoid that again.

Rob Surber, MIC commented that census relates to many things - Housing and Urban Development (HUD), EPA, etc. There are a lot governmental programs that use census data. So if we can get better information into the mix, we will get a better return for counties and regions that use the data for their administrative programs. So this is more than making TIGER better.

Ann VanSlembrouck, SEMCOG, stated that they are on the agenda, but are not going and would appreciate an update.

IX. Regional Projects and Activities

Ann VanSlembrouck, SEMCOG, reported that they are working with Monroe, Washtenaw, and St. Clair Counties' files that they got from the MIC. Need to talk to Everett Root, MIC, about the findings.

X. MSU Center for Remote Sensing and GIS Projects and Activities

Bill Enslin, MSU, reported that they are finishing up work on a new layer for digital raster graphics (DRG). While the state has been mosaiced by county and there are missing pieces of information (year for each quad, name of quad, vintage of DRG, contour interval) that they are planning to add. They are putting together a layer using Metadata that comes with quads. They have a request in to Charley Hickman, USGS, for contour interval for quads.

Rob Surber, MIC, stated that MIC can tag lines with the date or some information about source of the original Michigan Resource Information System (MIRIS) product.

Bill Enslin, MSU, asked for clarification.

Rob Surber, MIC, responded that MIRIS was digitized from the quads.

Bill Enslin, MSU, responded not necessarily – there is a different layer that can be constructed, which MDNR may have. It includes the date of the quad that they digitized. There have been photo revisions since then and they were scanned. The geography would be the same but the attribution would be different.

Rob Surber, MIC, commented had MIC talked about populating the line features with that data so that people would know if the road came from MIRIS and the date and the quad it will be useful especially for vector work.

Bill Enslin, MIC, commented that MDNR might have a list of quad names.

XI. County / Local Projects and Activities

Jeroen Wagendorp, Allegan County, stated there was nothing new to report.

XII. Federal Projects and Activities

Bernie Skipper, Natural Resources Conversation Service (NRCS), distributed an updated status map of soils. Hillsdale County is now complete. Last meeting mentioned new NASA download of a table that goes with the soils would begin this month but is now delayed at least until January. There will be a different structure for the soil table. State conservationist is planning to hire state soil scientist. They haven't had a person in this position for 6 years. They are looking for a technical person.

John Clark, MDEQ, asked if there is a list of hydric soils.

Bernie Skipper, NRCS, responded that there is not, the soil scientist should be working on that. There is a hard-copy lists for certain counties. Bernie offered the question to channel through Bill Frederick.

Jeroen Wagendorp, Allegan County, commented there is a website out of Nebraska by Micro Images that lists all hydric soils by county. It is downloadable as an excel file. They have created an excel equivalent of all the tables of conventional sources, windbreaks, etc. Jeroen offered to e-mail the address.

XIII. Other Issues

Rob Surber, MIC, distributed a summary of the United States Geological Survey's (USGS) reorganization, spending priorities, National Aerial Photography Program (NAPP), digital ortho quad (DOQ) program, and digital elevation models (DEM). There is also contact information. Or may contact Rob at (517) 373-7910.

John Clark, MDEQ, demonstrated MDEQ's internet mapping site.

XIV. Next Meeting Date – **Special Note: 1 week later than usual**

December 14, 2000, 10 a.m. until 12 p.m., George W. Romney Building, 111 S. Capitol, 10th Floor, Lansing, MI 48933

** If any changes or corrections are to be made to these minutes, please contact the Michigan Information Center at (517) 373-7910